

### Abstract of the Disclosure

A catheter for the positioning of a radioactive material for therapeutic radiation treatment of the body is disclosed. The catheter includes a radioactive source  
5 positioned at the distal end thereof and is sufficiently flexible and strong to navigate in the body to the desired treatment location. The radioactive source may be provided to the catheter in a number of different ways. In one set of embodiments, the radioactive source is bonded to the inner or outer surface of the catheter body, a catheter attachment or a carrier positionable within the catheter body. In another set  
10 of embodiments, one of the catheter body, catheter attachment or carrier positionable within the catheter body includes a cavity within which the radioactive source is placed. In this set of embodiments, the radioactive source may be provided in a variety of different forms, depending upon the particular needs of the treatment method. The radioactive source may also be immobilized in a polymeric  
15 material such as an elastomer, gel, hydrogel, foam or other similar deformable material. Finally, the catheter body or carrier may include a removable portion which provides access to the cavity within which the radioactive source is housed.